

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/298,306	FOSSUM ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nhan T. Tran	2615	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 12/22/2004.
2. ☒ The allowed claim(s) is/are 1-16, 18-23.
3. ☒ The drawings filed on 23 December 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see Amendment After Final, filed 12/22/2004, with respect to claims 1-6, 18-23 have been fully considered and are persuasive. The rejections of these claims are withdrawn.

### *Allowable Subject Matter*

2. Claims 1-16, 18-23 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding independent claim 1, the prior art of record fails to teach or fairly suggest the combination of all limitations required in claim 1 that includes "...a first counter which counts a number of overexposed parts of said digital output; a second counter which counts a number of underexposed parts of said digital output; a plurality of threshold detectors for *comparing counting results of said first and second counters with desired thresholds; a decision element, which is capable of making a decision to either increase an a next frame of exposure of said image sensor or decrease an a next frame of exposure of said image sensor based on a relation with said thresholds.*"

Regarding independent claim 14, the prior art of record also fails to teach or fairly suggest the combination of all limitations required in claim 14 that includes "...an image sensor,

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including a plurality of *adjustable photoreceptors*, each photoreceptor defining a pixel of the image, and said image sensor having an adjustable exposure which when increased, increases an amount of exposure for *a next frame of the image*, and when decreased, decreases an amount of exposure for *a next frame of the image*;...; a pixel characterization element, representing certain *most significant bits of at least a plurality of said digital outputs*, to thereby characterize said pixel according to its exposure characteristic; a counter element, which counts numbers of pixels characterized by said pixel characterization element and compares said count with certain *thresholds*; and an image adjusting element, for adjusting said exposure *based on said count*.”

Regarding independent claim 16, the prior art of record also fails to teach or fairly suggest the combination of all limitations required in claim 16 that include “...*setting a first variable threshold for overexposed pixels; setting a second variable threshold for underexposed pixels; characterizing said digital values by obtaining only a number of most significant bits of said pixels and not all bits of said pixels and investigating said most significant bits to determine if they represent overexposed pixels, normally-exposed pixels or underexposed pixels; counting said characterized digital values; and if the number of overexposed pixels is greater than said first threshold, then decreasing an exposure for a next frame and if the number of under exposed pixels is greater than said second threshold then increasing the exposure for the next frame*.”

Regarding claims 2-13, these claims are either directly or indirectly dependent of claim 1.

Regarding claim 15, this claim is dependent of claim 14.

Regarding claims 18-23, these claims are either directly or indirectly dependent of claim 16.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

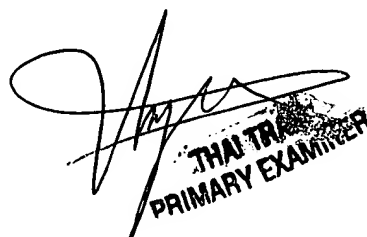
### *Conclusion*

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (703) 605-4246. The examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.



THAI TRAN  
PRIMARY EXAMINER